GENERAL INFORMATION

PROCEDURE FOR HANDLING CHASSIS/DEALER CLAIMS

General

All chassis tendered for delivery by the Transportation Company are to be accepted by the Body Company. If a chassis has been damaged or is short certain parts when received by the Body Company, they will repair or replace missing parts, if possible, with their own or other local facilities and promptly forward the claim to the dealer.

If the Body Company or other local facilities are not adequate for replacing missing or damaged parts, the Body Company will promptly notify the Dealer and hold damaged chassis awaiting his instructions. The Dealer must be notified promptly upon receipt of a chassis on which a claim is in order giving the "model", "engine number," and "serial number" and what the damage or shortage consisted of. This is important since Chevrolet/GMC Truck cannot accept claims from the Dealer unless filed within thirty days from date of delivery, or unless within the thirty-day period, the Dealer has advised Chevrolet/GMC Truck that a claim will be filed. Delivery to the Body Company constitutes delivery to the Dealer, since the Body Company is the Dealer's agent.

Completed vehicles that are to be driven to the Dealer or the Dealer's customer must first be serviced by the Body Company at the Body Company's location in accordance with Chevrolet/GMC Truck new vehicle conditioning procedures. Expenses incurred for this condition are the responsibility of the selling Dealer.

Shipments Received from Truckaway or Driveaway Company

The Body Company will inspect condition of chassis and call driver's attention to damage or missing parts and make a detailed notation of both copies of Transportation Company's delivery receipt of the nature and extent of the existing damage and/or shortage and have driver sign such notation on the Dealer's copy. If chassis are received after business hours and cannot, therefore, be adequately inspected, the delivery receipt (both copies) is to carry notation "Received subject to inspection" and show the time and date. On such chassis, a detailed inspection must be made within 24 hours or on the first working day after receipt of chassis and immediately furnish to the Dealer. Any exceptions are to be noted on both copies of the delivery receipt by the Body Company.

If Received from Railroad

Freight car should be opened and contents inspected in presence of railroad representative before starting to unload, and any existing damage or shortage recorded by the railroad representative on his standard inspection report. Body Company must secure from railroad agent, a copy of his inspection report detailing nature and extent of the damage and/or shortage.

If the railroad representative does not comply with consignee's request to make an inspection, then the Body Company will immediately confirm his request (in writing) to the railroad agent, outlining the nature and extent of damage and/or shortage disclosed by consignee's inspection, prior to starting any unloading operations, sending a copy of his letter to the Dealer.

Filing a Claim

Upon completion of repairs or replacements of missing parts, the Body Company will promptly bill the Dealer for the cost involved, supporting such debit with a detailed statement showing how the amount is arrived at end either the original delivery receipt with notation if received from a truckaway company or the carrier's inspection report if received from a railroad.

Disposition of Damaged Parts

Damaged parts removed from chassis by the Body Company must be held for disposition orders from the Dealer.

Dealer claims will not be allowed unless above instructions are fully complied with.

GOVERNMENT REGULATIONS

Introduction

The Federal Government has established Motor Vehicle Safety Standards for various categories of motor vehicles and motor vehicle equipment under the provisions of the National Traffic and Motor Vehicle Safety Act of 1966. The Act imposes important legal responsibilities on manufacturers, dealers, body builders and others engaged in the manufacturing and marketing of motor vehicles and motor vehicle equipment.

Questions dealing with the specific application of the Act or the standards to your business should be discussed with your legal counsel. This is particularly so because the standards and other requirements or interpretations are subject to change by the government agency in charge, the National Highway Traffic Safety Administration.

New standards and amendments issued by the National Highway Traffic Safety Administration will appear in the Federal Register from time to time. You may obtain the Federal Register, through the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

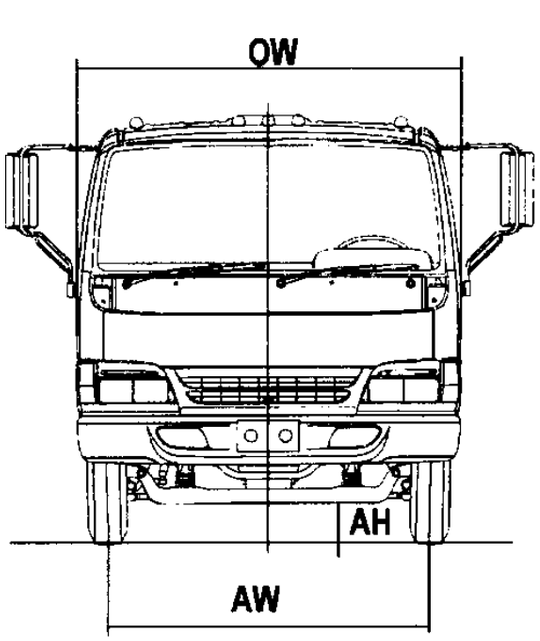
W5500 DIESEL

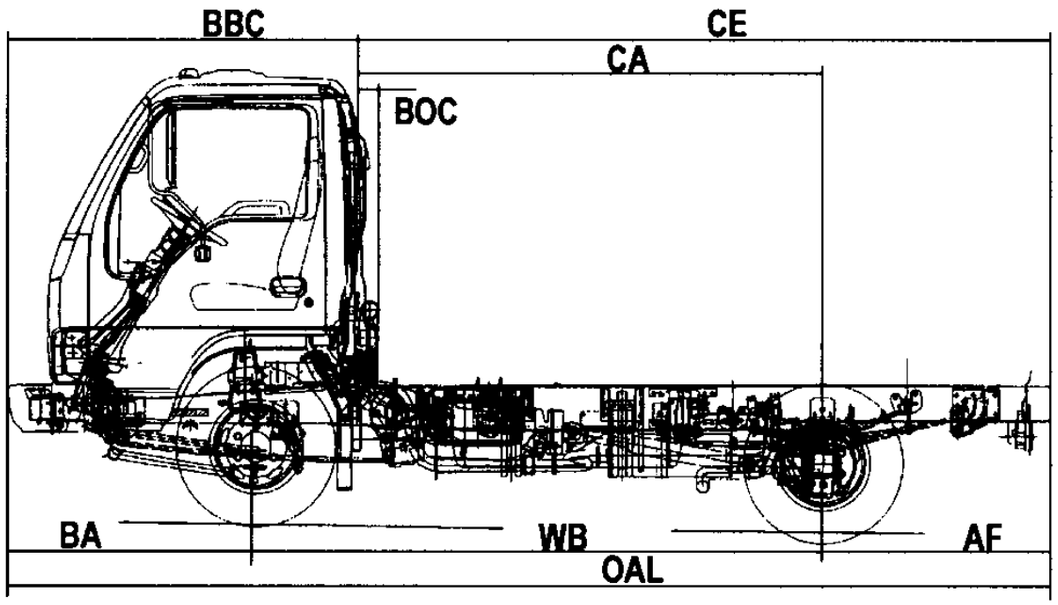
SPECIFICATIONS

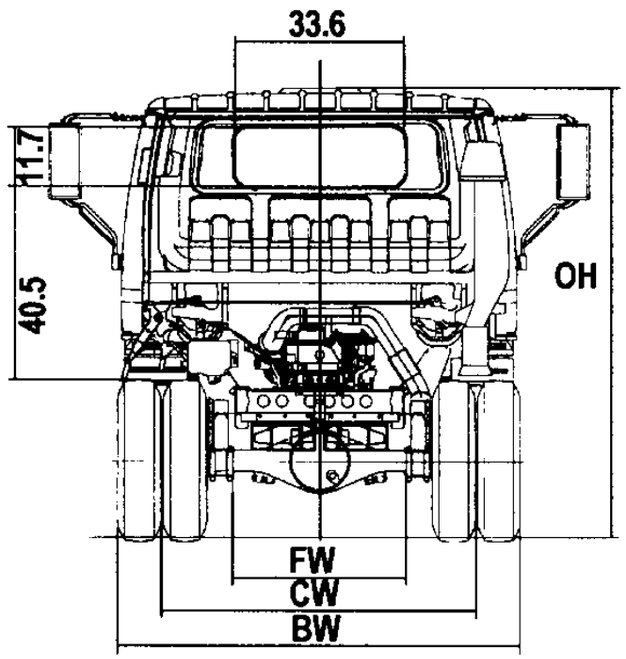
Model	W5500
GVWR	16,500 lb.
WB	109 in./132.5 in./150 in./176 in.
Engine	GM/Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HE1-TC/290 CID (4.75 liters)
HP (Gross)	175 HP/2700 RPM
Torque (Gross)	347 lb. ft. torque/2000 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 511.2 in^2 radiator; 6 blade 18.7 in. diameter fan with viscous drive. Cold weather starting device and an oil cooler.
Clutch	Single, dry plate, 12.8 in. dia. ceramic, actuated by self adjusting hydraulic master/slave cylinder.
Transmission	MBP6P 6-speed manual, all forward gears synchronized. Sixth gear is overdrive.
Steering	Integral power steering 20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot “I” Beam rated at 6,830 lb.
Suspension	Semi-elliptical steel alloy leaf springs with stabilizer bar and shock absorbers.
GAWR	6830 lb.
Rear Axle	Full floating single speed with hypoid gearing rated at 14,550 lb.
Suspension	Semi-elliptical steel alloy leaf springs and shock absorbers.
GAWR	12,980 lb.
Wheels	19.5 x 6.0 6-hole disc wheels, painted white.
Tires	2225/70R-19.5F (12 pr) tubeless steel belted radials, highway tread front and rear.
Brakes	Dual circuit power assisted hydraulic service brakes with load sensing proportioning valve in rear brake circuit. Disc front and self-adjusting outboard mounted drum rear. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. The exhaust brake is standard and is vacuum operated.
Fuel Tank	33 gal. cylindrical steel fuel tank mounted on right hand rail with fuel water separator mounted on rail.
Frame	Ladder type channel section straight frame rail 33.5 in. wide through the total length of the frame. Yield strength 44,000 psi section modulus 7.20 in^3. RBM 316,800.
Cab	All steel low cab forward, BBC 68.0 in., 45° mechanical tilt with torsion assist.
Equipment	Jersey knit covered high back driver’s seat with two occupant passenger seat. Two-way roof ventilator, dual cab mounted exterior mirrors. Tilt and telescoping steering column. Tinted glass.
Electrical	12 Volt, negative ground, dual Delco maintenance free batteries, 750 CCA each, 80 Amp alternator with integral regulator.
Options	Air Conditioning; AM/FM cassette stereo radio; PTO; engine block heater; engine oil pan heater; heated fuel/water separator; spare wheel; 6” stainless steel convex mirrors.
Transmissions	Aisin 450-43 LE 4-speed overdrive automatic transmission with lock-up capability in 2nd, 3rd and 4th and PTO capability.

NOTE: These selected specifications are subject to change without notice.

VEHICLE WEIGHTS, DIMENSIONS AND RATINGS







W5500 DIESEL

Variable Chassis Dimensions					
Unit	**WB**	**CA***	**CE***	**OAL**	**AF**
Inch	109.0	88.4	131.5	199.5	43.1
Inch	132.5	111.9	155.0	223.0	43.1
Inch	150.0	129.4	172.5	240.5	43.1
Inch	176.0	155.4	198.5	266.3	43.1

* Effective CA & CE are CA or CE less BOC.

Dimension Constants					
Code	**Inches**	**Code**	**Inches**	**Code**	**Inches**
AH	7.9	BW	83.3	FH	32.75
AW	65.6	CW	65.0		
BA	47.4	FW	33.5		
BBC	68.0	OH	88.08		
BOC	9.25	OW	78.5		

16,500 lb. GVWR Manual Transmission Model						
Chassis Cab and Maximum Payload Weights						
Model	**WB**	**Unit**	**Front**	**Rear**	**Total**	**Payload**
NQ1	109.0 in.	lb.	3,891	2,028	5,919	10,581
NQ2	132.5 in.	lb.	3,935	2,050	5,985	10,515
NQ3	150.0 in.	lb.	3,979	2,072	6,051	10,449
NQ4	176.0 in.	lb.	4,023	2,094	6,117	10,383

16,500 lb. GVWR Automatic Transmission Model						
Chassis Cab and Maximum Payload Weights						
Model	**WB**	**Unit**	**Front**	**Rear**	**Total**	**Payload**
NR1	109.0 in.	lb.	3,880	2,028	5,908	10,592
NR2	132.5 in.	lb.	3,924	2,050	5,974	10,526
NR3	150.0 in.	lb.	3,968	2,072	6,040	10,460
NR4	176.0 in.	lb.	4,012	2,094	6,106	10,394

Vehicle Weight Limits:

GVWR	
Designed Maximum	16,500 lb.
GAWR, Front	6,830 lb.
GAWR, Rear	12,980 lb.

Technical Notes:

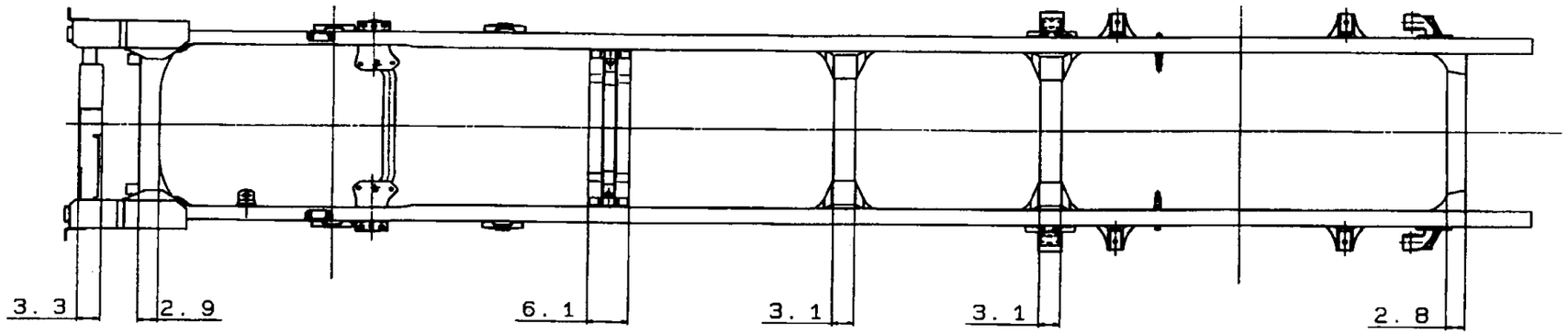
Chassis Curb Weight reflects standard equipment and fuel, but no driver or payload.

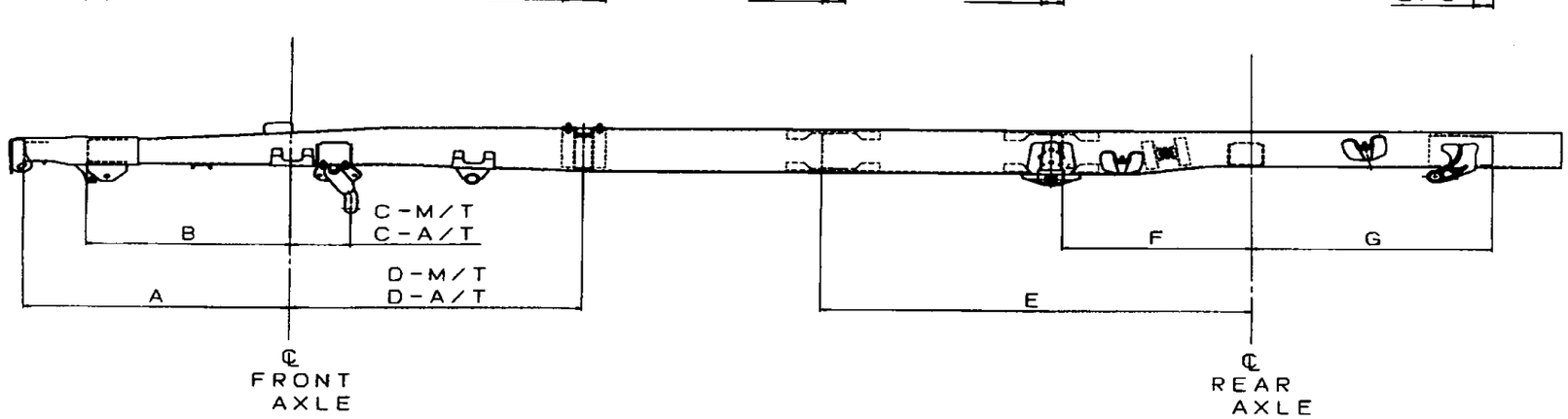
Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

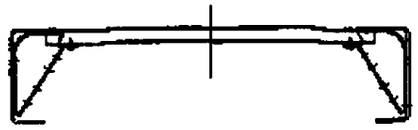
Model Descriptions

The W5500 Series Diesel features a low cab forward design that is ideally suited for inter-city type applications. The low cab forward design minimizes overall length for a given body length and in conjunction with the set back front axle positioning provides excellent weight distribution. The 42.5° inside wheel cut angle coupled with integral power steering make it an extremely well maneuverable truck.

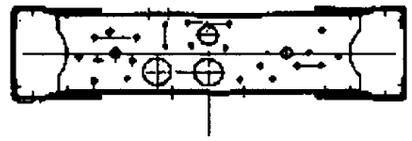
FRAME & CROSSMEMBER SPECIFICATIONS



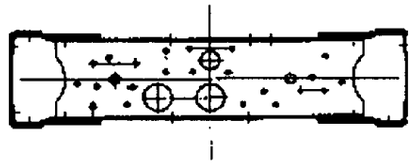




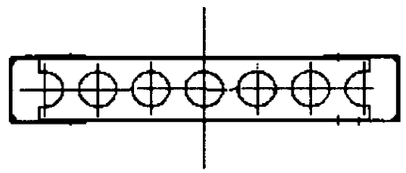
Type AA



Type BB



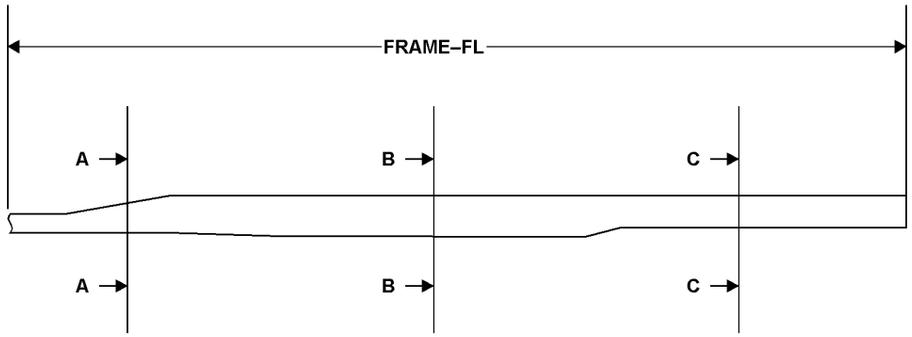
Type CC

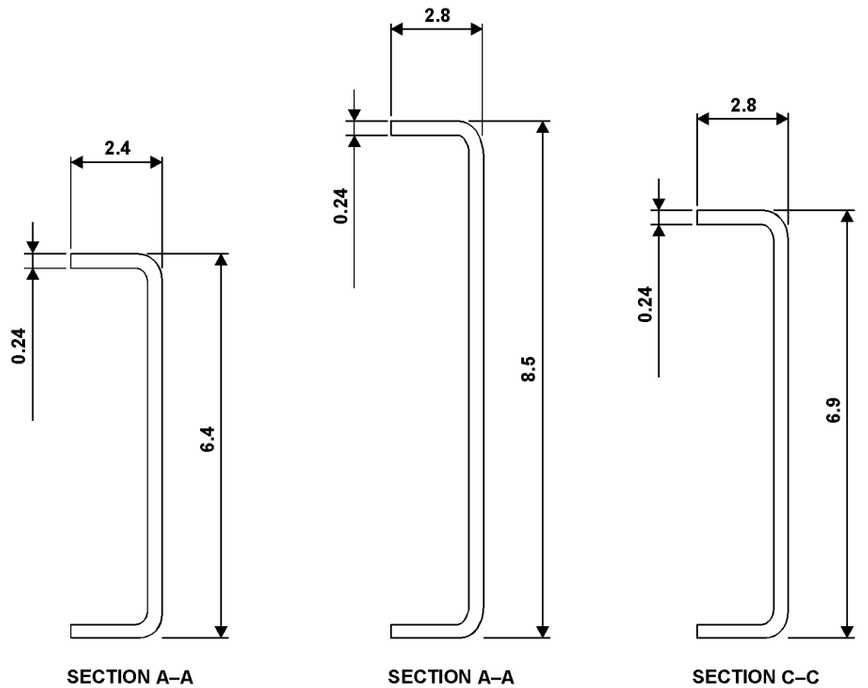


Type DD

Model	Wheel Base	Frame Thick	Cross Member Type/Location								
			A	B	C- Man. Trans.	C-Auto. Trans.	D-Man. Trans.	D-Auto. Trans.	E	F	G
W5500	109.0	0.24	37.0	28.3	8.1	8.1	AA 40.5	AA 44.7	—	CC 26.0	DD 33.0
W5500	132.5	0.24	37.0	28.3	8.1	8.1	AA 40.5	AA 44.7	BB 59.4	CC 26.0	DD 33.0
W5500	150.0	0.24	37.0	28.3	8.1	8.1	AA 40.5	AA 44.7	BB 59.4	CC 26.0	DD 33.0
W5500	176.0	.024	37.0	28.3	8.1	8.1	40.5	44.7	59.4	26.0	33.0

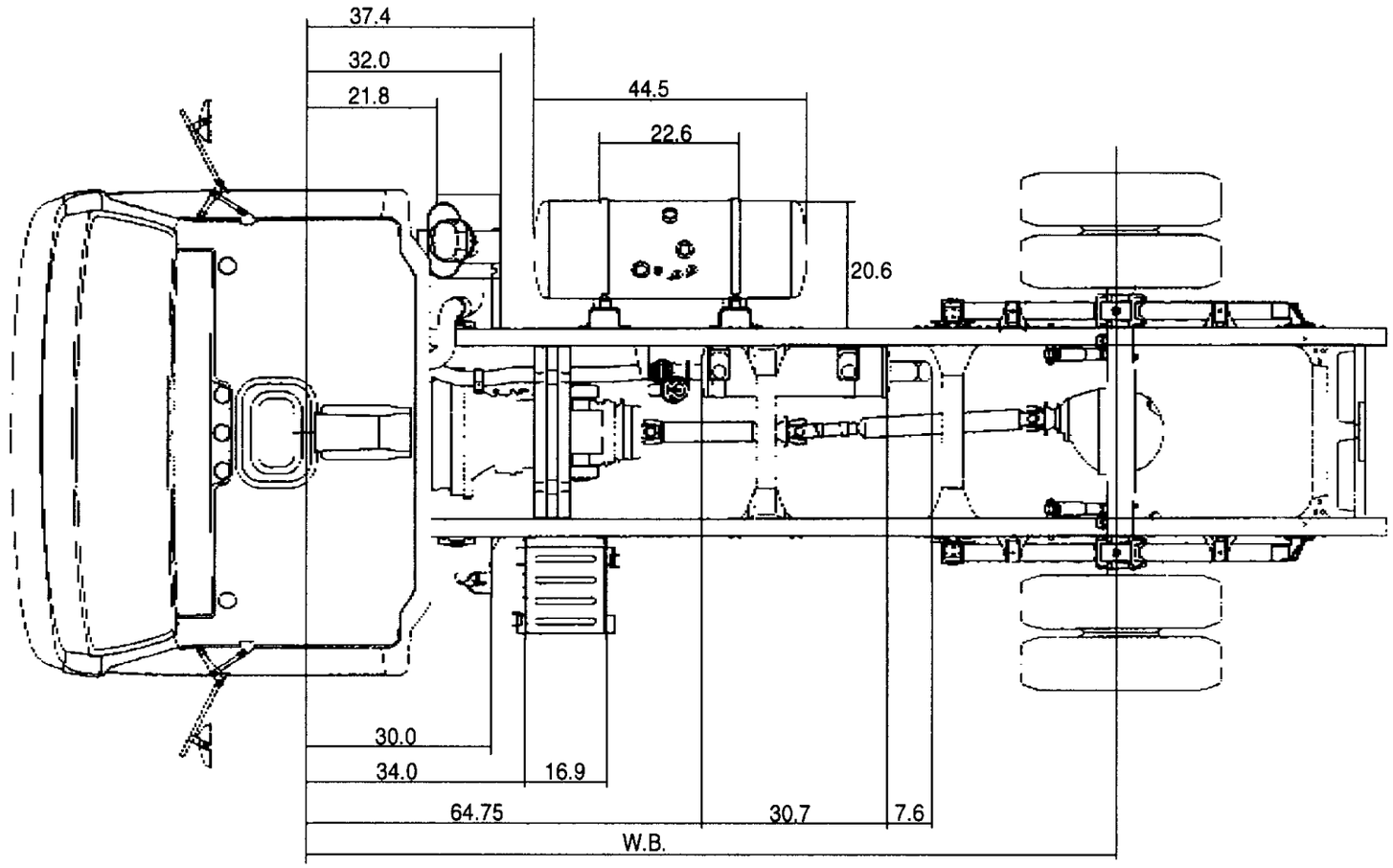
FRAME CHART

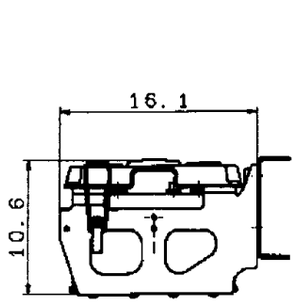




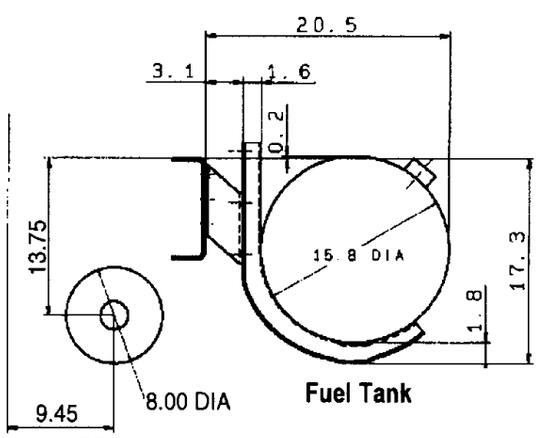
Vehicle Model	Wheel Base	Frame FL	Frame Thickness
W5500	109.0	186.0	0.24
W5500	132.5	209.6	0.24
W5500	150.0	227.4	0.24
W5500	176.0	253.4	0.24

AUXILIARY VIEWS





Battery



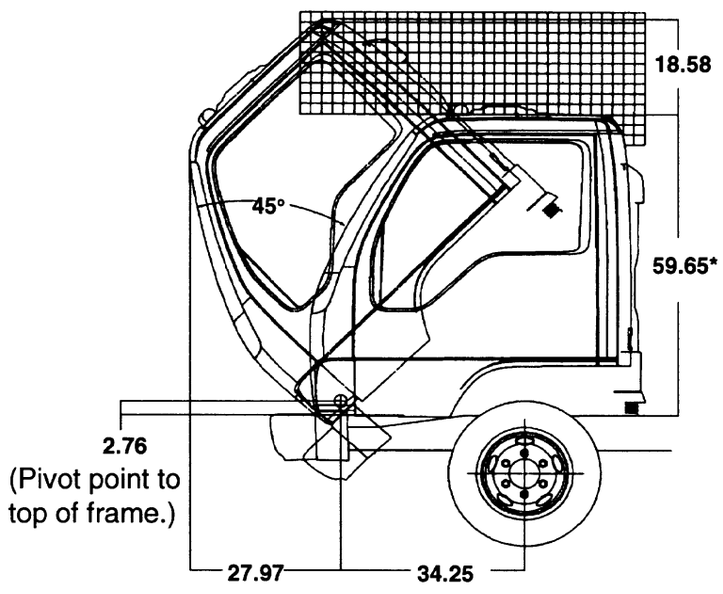
Fuel Tank

Silencer

BODY BUILDER WEIGHT INFORMATION CHART

GVWR	Axle	Wheel Base								Unsprung Weight
		109 in.		132.5 in.		150 in.		176 in.		
		Man. Trans.	Auto. Trans.	Man. Trans.	Auto. Trans.	Man. Trans.	Auto. Trans.	Man. Trans.	Auto. Trans.	
16,500	Front	3,891	3,880	3,935	3,924	3,979	3,968	4,023	4,012	705
	Rear	2,028	2,028	2,050	2,050	2,072	2,072	2,094	2,094	1,366
	Total	5,919	5,908	5,985	5,974	6,051	6,040	6,117	6,106	2,071

Cab Tilt



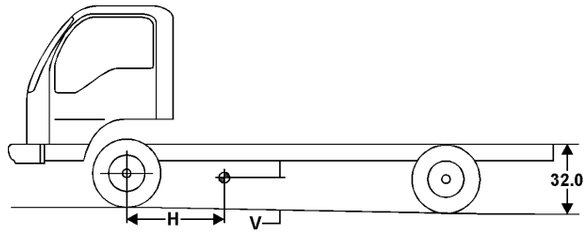
GRID SCALE:
One sqare is 2 in x 2 in

NOTE: Roof vent adds 1.5 inches to overall cab height.

RADIUS FROM PIVOT TO OUTER EXTENT OF CAB:
Radius - 79.02

Center of Gravity

GVWR	WB	V	H	
			Manual Trans.	Auto. Trans.
16,500	109	22.1	36.8	37.4
	132.5	20.6	44.7	44.8
	150	20.4	50.6	50.7
	176	18.9	59.4	59.5

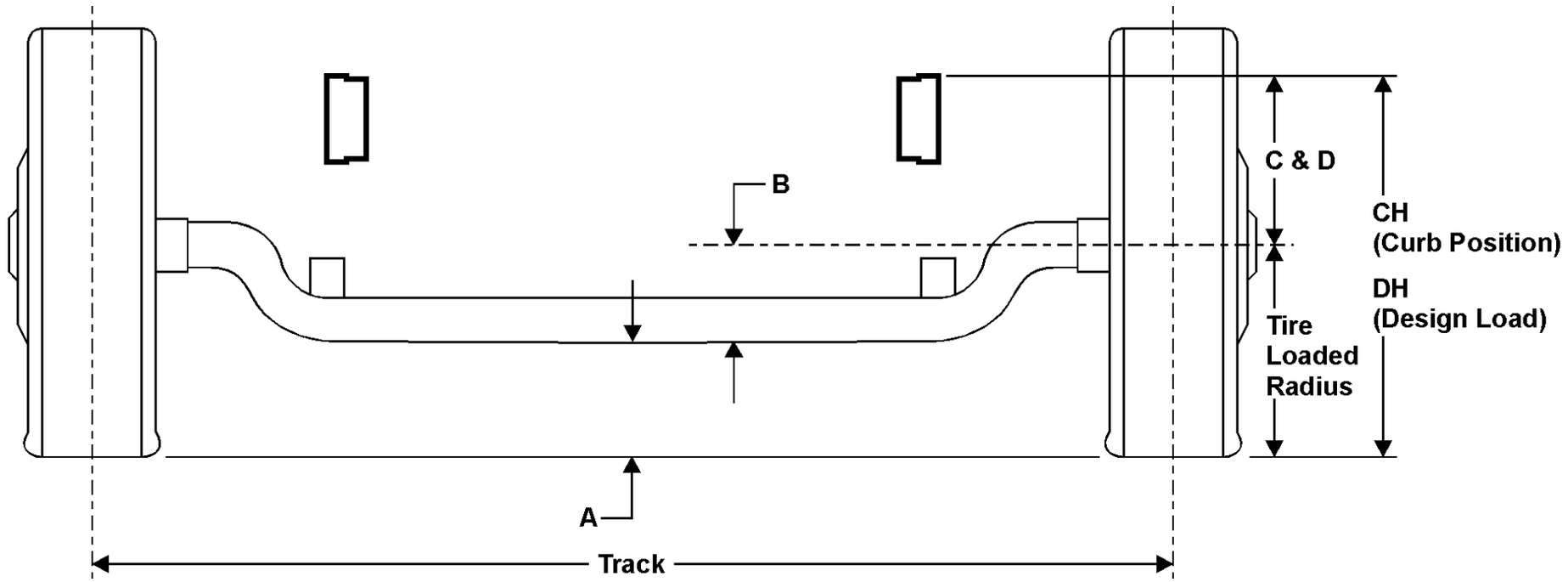


V = Vertical Center of Gravity
H = Horizontal Center of Gravity

The center of gravity of the completed vehicle with a full load should not exceed ? inches above ground level for the 16,500 lb. GVWR, and must be located horizontally between the centerlines of the front and rear axles.

NOTE: The maximum dimensions for a body installed on the W5500 Diesel is 96 inches wide (outside) by 90 inches high (inside). Any larger body applications must be approved by GM/Isuzu Application Engineering. In the West Coast call 1-562-699-0500, extension 2385 and in the East Coast call 1-770-475-9195 extension 353.

FRONT AXLE CHART

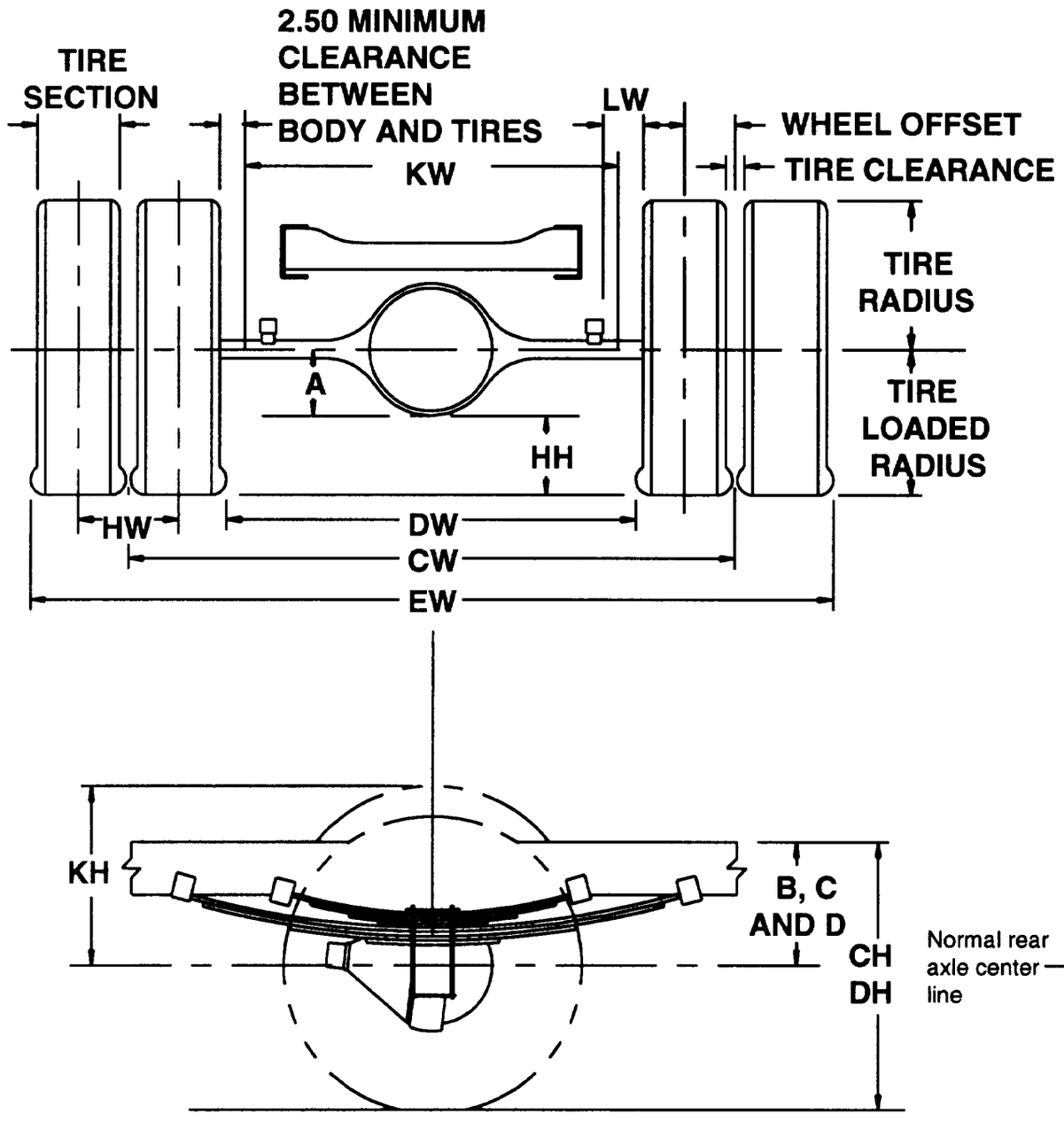


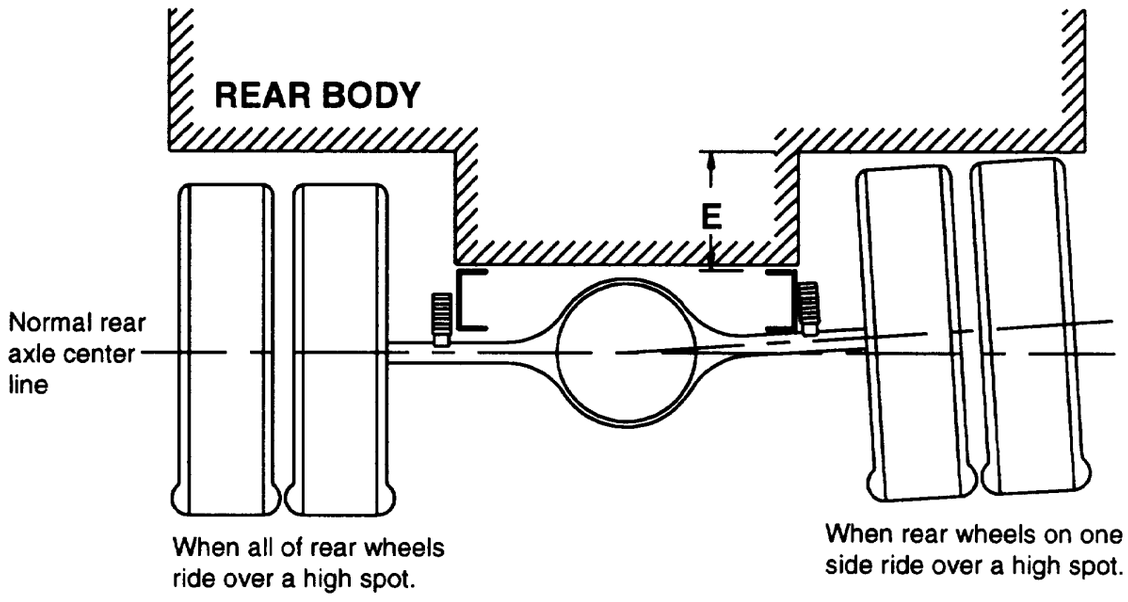
Formulas for calculating height dimensions

A = Tire Loaded Radius-B
C = Centerline of Axle to Top of Frame Rail at Curb Position
D = Centerline of Axle to Top of Frame Rail at Design Load
CH = C + Tire Unloaded Radius
DH = D + Tire Loaded Radius

Tire	GVWR	GAWR	A	B	C	D	CH	DH	Track	Tire Radius	
										Unload	Load
225/70R 19.5	16,500 lb.	6,830 lb.	8.4	7.0	13.6	13.1	29	28.1	66.1	15.4	15.0

REAR AXLE CHART




REAR BODY
E
Normal rear axle center line
When all of rear wheels ride over a high spot.
When rear wheels on one side ride over a high spot.

Definitions			
A	Center line of axle to bottom of axle bowl.	DH	Rear Frame Height: Vertical distance between the normal top of frame rail and the ground-line through the center line of the rear axle at design load.
B	Center line of axle to top of frame rail at metal to metal position.	DW	Minimum distance between the inner surfaces of the rear tires.
C	Center line of axle to top of frame rail at curb position.	EW	Maximum Rear Width: Overall width of the vehicle measured at the outer most surface of the rear tires.
D	Center line of axle to top of frame rail at design load.	HH	Rear Tire Clearance: Minimum clearance between the rear axle and the ground-line.
E	Rear Tire Clearance: Minimum clearance required for tires and chain measured from the top of the frame at the vertical center line of the rear axle, when rear wheels on one side ride over a high spot.	HW	Dual Tire Spacing: Distance between the center lines of the minimum distance required for tire bounce as measured from the center line of the rear axle and the top of the rear tire when one wheel rides over a high spot.
CH	Rear Frame Height: Vertical distance between the normal top of frame rail and the ground-line through the center line of the rear axle at curb position.	CW	Track Dual Rear Wheel Vehicles: Distance between the center lines of the dual wheels measured at the ground-line.
Tire Section Tire Radius Tire Loaded Radius Tire Clearance		See Tire Chart for Values	

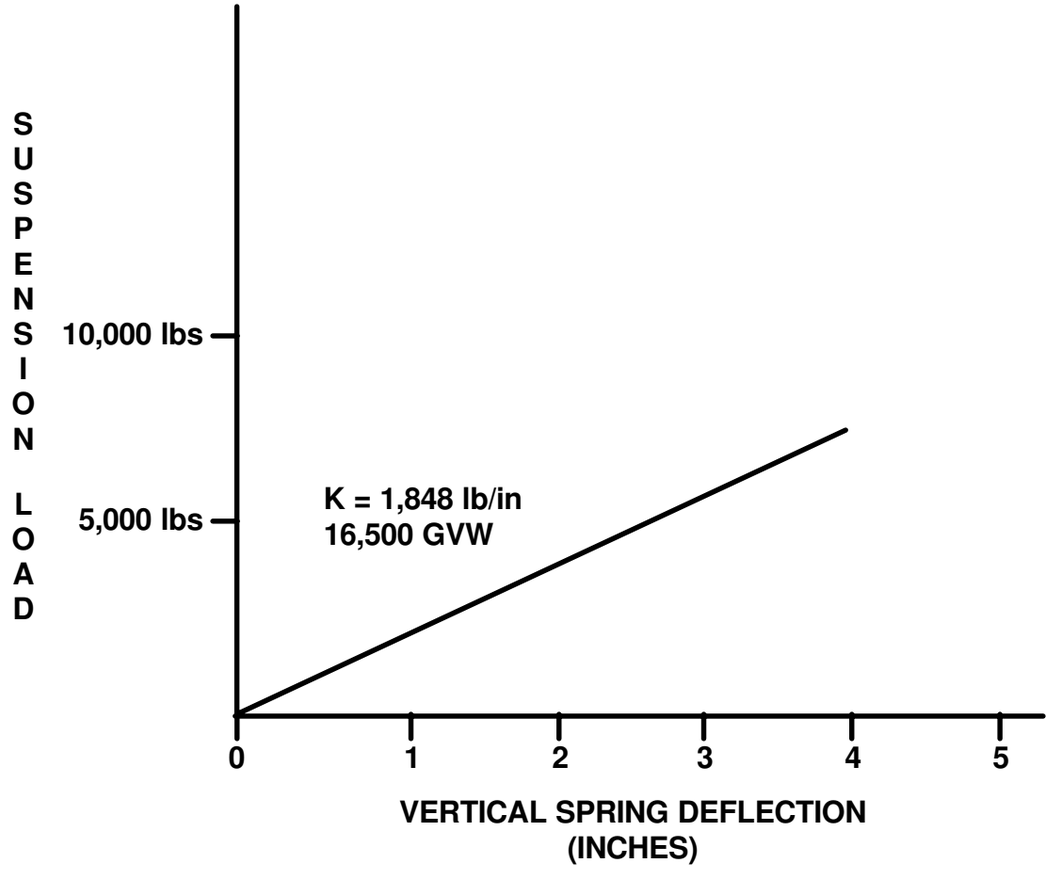
Formulas for Calculating Rear Width and Height Dimensions			
CW	= Track	HH	= Tire loaded radius – A
CH	= Tire loaded radius + C	JH	= KH – B
DH	= Tire loaded radius + D	KH	= Tire radius + 3.00 inches
DW	= Track + 2 tire sections – tire clearance	KW	= DW – 5.00 inches
EW	= Track + 2 tire sections + tire clearance	LW	= 1.00 inch minimum clearance between tires and springs

NOTE: Track and overall width may vary with optional equipment.

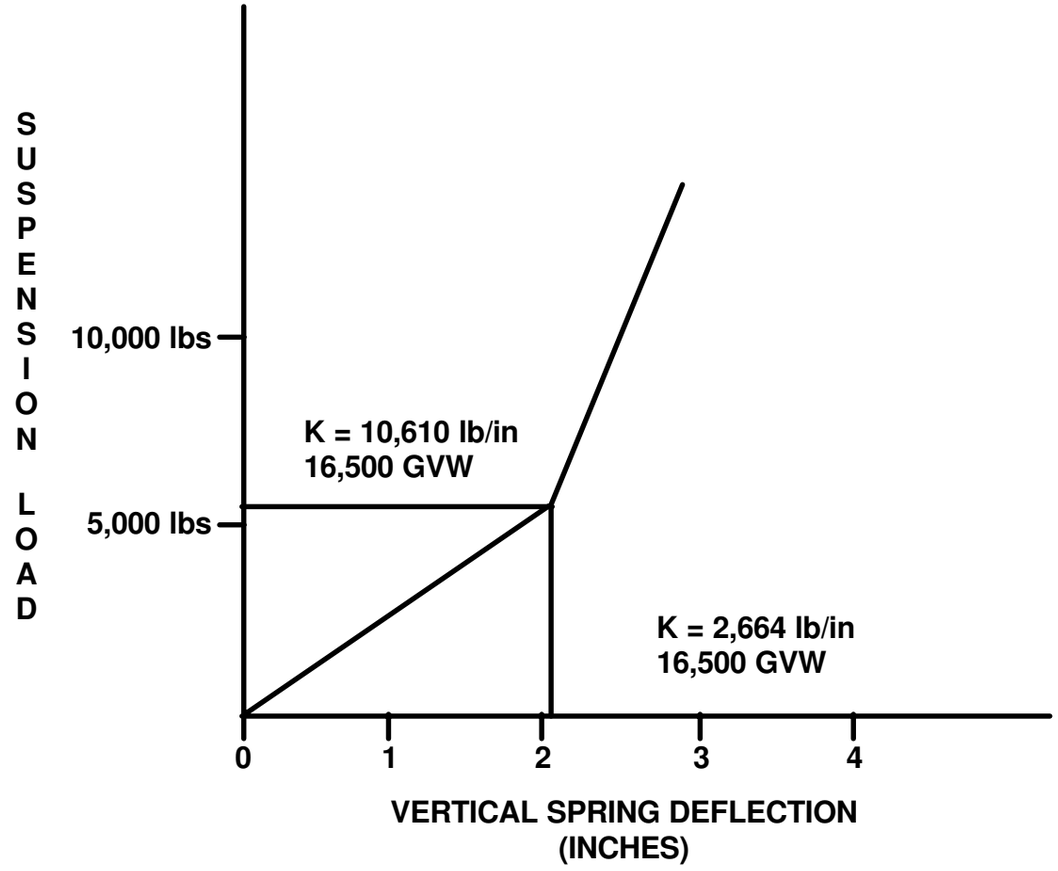
Tire	GAWR	Track CW	A	B	C	D	E
225/70R19.5	12,980 lb.	65.0	11.6	10.6	14.9	13.0	8.4

SUSPENSION DEFLECTION CHARTS

Front Leaf Spring Load vs. Deflection (Per Axle)



Rear Leaf Spring Load vs. Deflection (Per Axle)



TIRE AND DISC WHEEL CHART

Tire

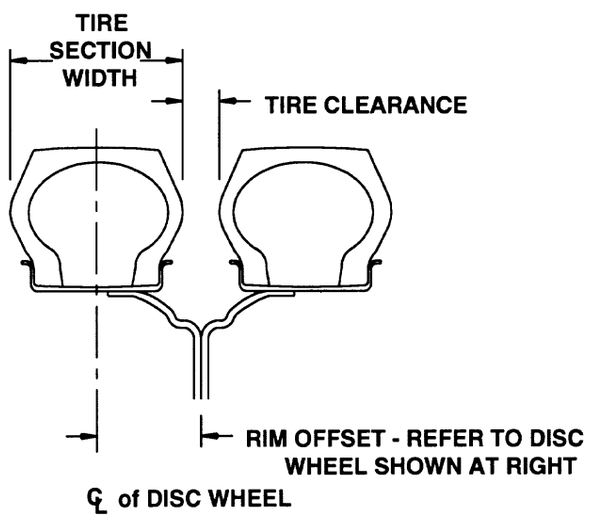
Tire Size	Tire Load Limit and Cold Inflation Pressures				Maximum Tire Load Limits		GVWR (Lb)
	Single		Dual		Front	Rear	
	Lb	PSI	Lb	PSI	2 Single	4 Dual	
225/70R 19.5F	3450	90	3245	90	6900	12,980	16,500

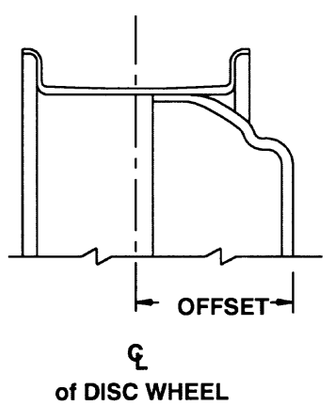
Tire Size	GVWR (Lb)	Tire Radius				Tire Section Width	Tire Clearance	Design Rim Width
		Loaded		Unloaded				
		Front	Rear	Front	Rear			
225/70R 19.5F	16,500	15.0	15.2	15.4	15.8	8.8	1.2	6.0

Disc Wheel

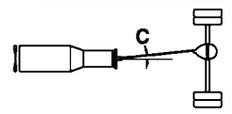
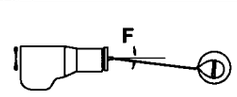
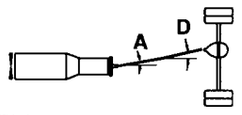
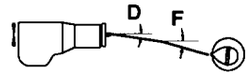
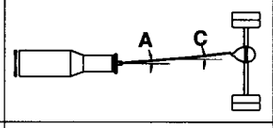
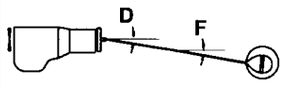
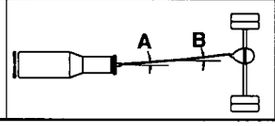
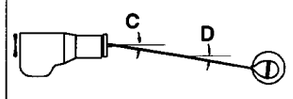
Wheel Size	Bolt Holes	Bolt Circle Dia.	Ft/Rr Nut Size*	Rear Stud Size*	Nut/Stud Torque Specs.	Inner Circle	Outside Offset	Disc Thickness	Rim Type	Material Mfg.
16 x 6.00K	6 JIS	8.75	1.6142 (41 mm) BUD HEX	0.8268 (21 mm) SQUARE	325 ft.-lb (440 N•m)	6.46	5.0	0.39	15° DC	Steel TOPY

* O.D. Wrench Sizes





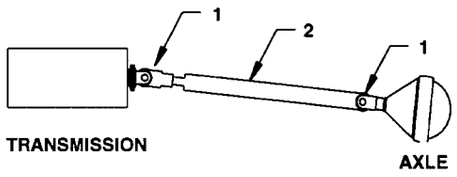
PROPELLER SHAFT

WB	PLANE VIEW	SIDE VIEW
109 in		
132.5 in		
150 in		
176 in		

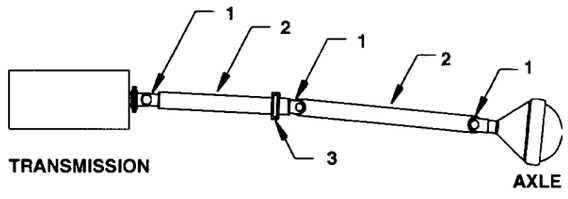
TYPICAL INSTALLATIONS SHOWING YOKES "IN PHASE". "IN PHASE" MEANS THAT THE YOKES AT EITHER END OF A GIVEN PROPELLER SHAFT ASSEMBLY ARE IN THE SAME PLANE.

NPR

(109 in WB)



(132.5 in, 150 and 176 in WB)



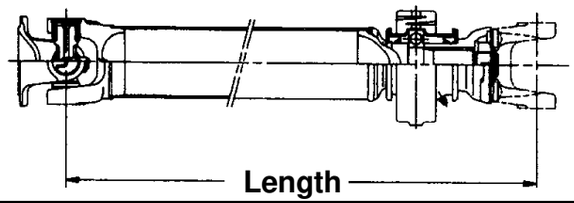
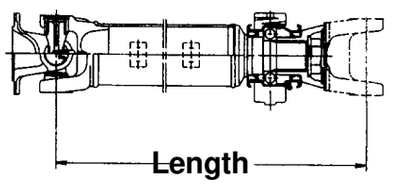
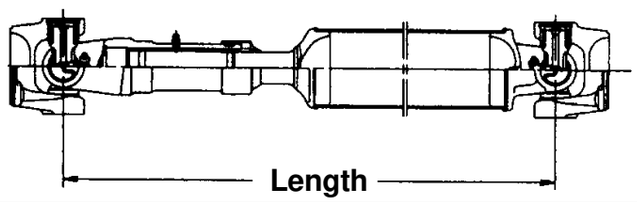
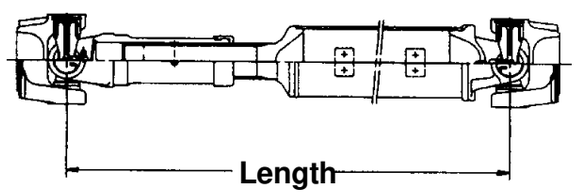
1. UNIVERSAL JOINT
2. PROPELLER SHAFT
3. CENTER CARRIER BEARING

Wheel Base	Plan View				Side View			
	A Manual Trans.	A Auto. Trans.	B Manual Trans.	B Auto. Trans.	C Manual Trans.	C Auto. Trans.	D Manual Trans.	D Auto. Trans.
109 in.	—	—	3.1°	3.1°	—	—	9.4°	9.4°
132.5 in.	0°	0°	3.1°	3.1°	4.9°	5.0°	7.3°	7.3°
150 in.	0°	0°	3.1°	3.1°	2.6°	2.6°	7.7°	7.7°
176 in.	0°	0°	2.3°	2.3°	2.8°	2.8°	4.8°	4.8°

NOTE: All driveline angles are at unloaded condition (Curb position with typical cargo body).

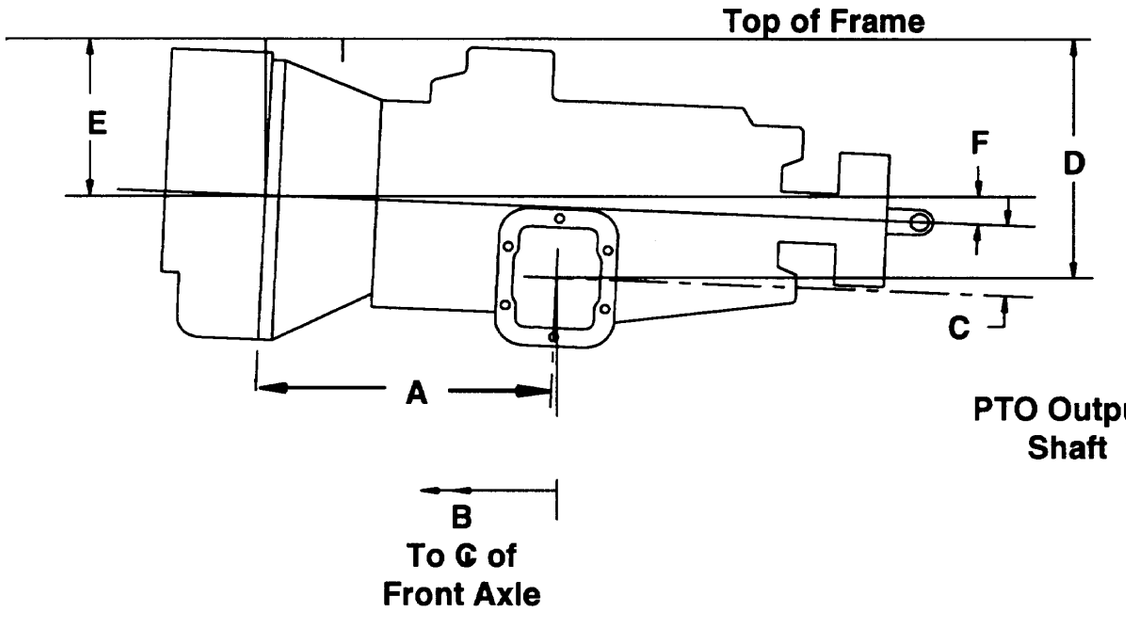
W5500 DIESEL

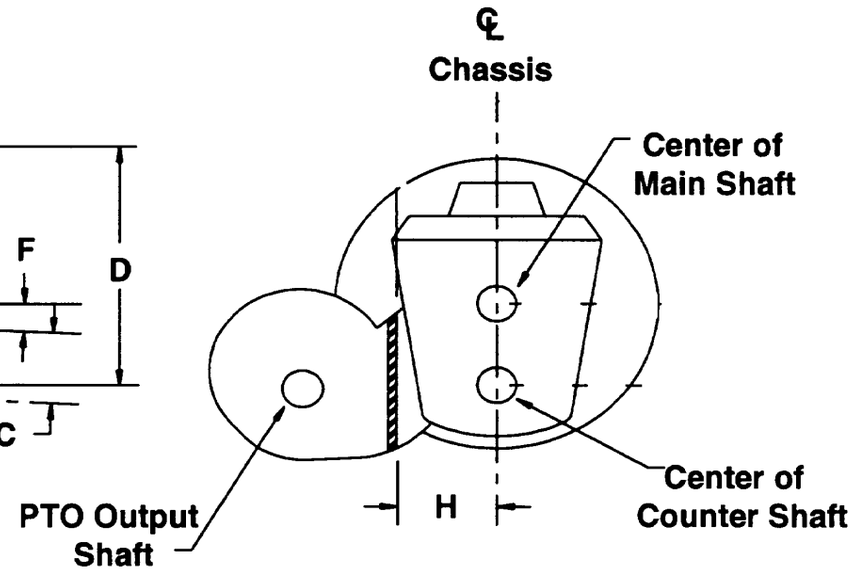
Wheel Base	109		132.5		150		176	
No. of Shafts	1		2		2		2	
Trans. Type	6 Manual Trans.	4 Auto. Trans.	6 Manual Trans.	4 Auto. Trans.	6 Manual Trans.	4 Auto. Trans.	6 Manual Trans.	4 Auto. Trans.
Shaft #1 O.D.	3.54	3.25	3.54	3.25	3.54	3.25	3.54	3.25
Thickness	0.126	0.091	0.126	0.091	0.126	0.091	0.126	0.091
Length	38.7	38.6	24.5	24.3	41.9	41.9	53.7	53.7
Type	D	C	B	A	B	A	B	A
Shaft #2 O.D.	3.54	3.25	3.54	3.25	3.54	3.25	3.54	3.25
Thickness	0.126	0.091	0.126	0.091	0.126	0.091	0.126	0.091
Length	N/A	N/A	38.3	38.3	38.3	38.3	52.6	52.6
Type	N/A	N/A	D	C	D	C	D	C

Type	Description	Model	Illustration
Type A	1st shaft in 2 piece driveline	P20	
Type B		P30	
Type C	1st shaft in 1 piece driveline 2nd shaft in 2 piece driveline	P20	
Type D		P30	

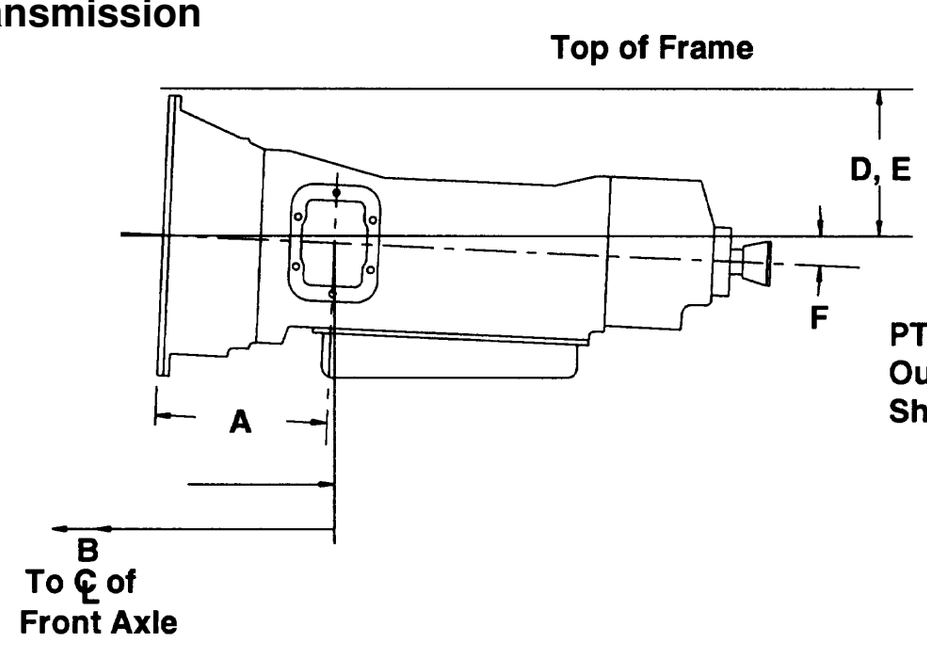
PTO LOCATION, DRIVE GEAR AND OPENING INFORMATION

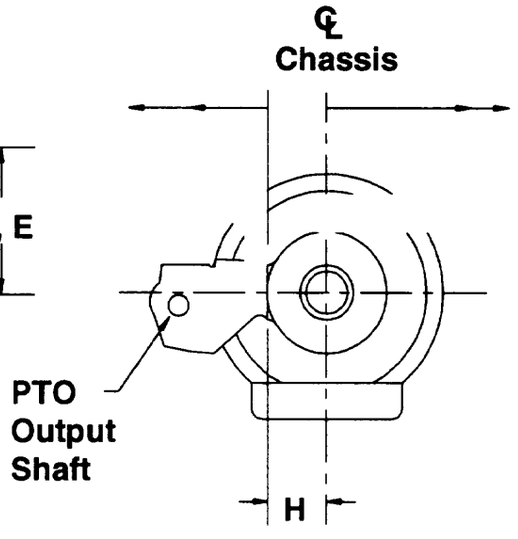
Manual Transmission





Automatic Transmission



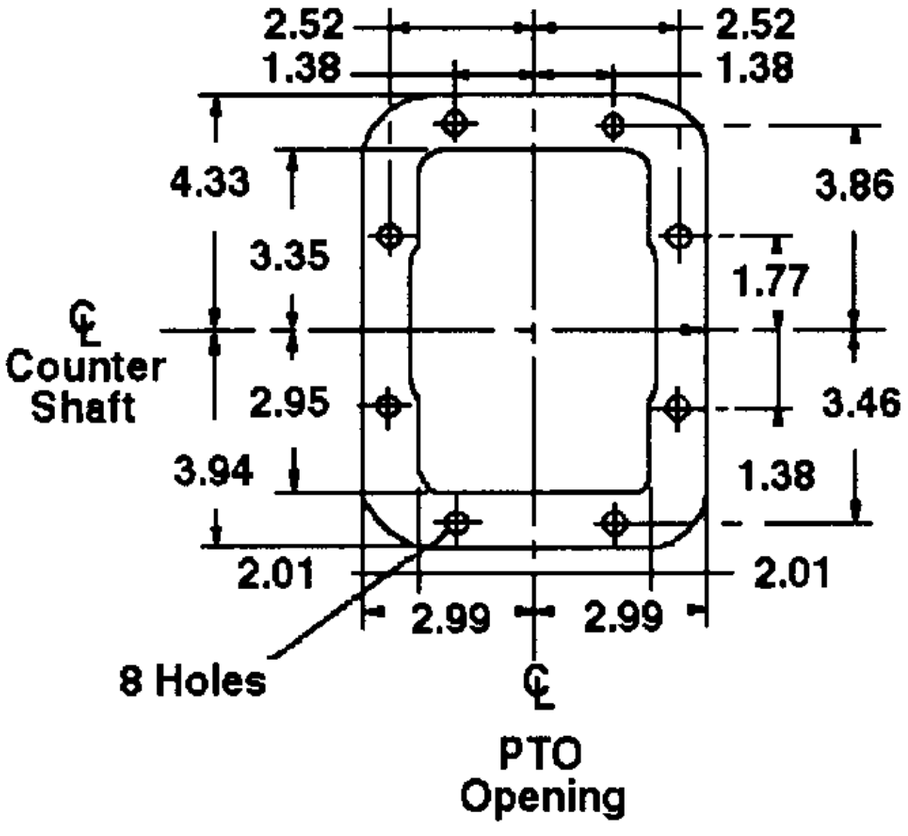


Trans.	Opening Location	Bolt Pattern	A	B	C	D	E	F	H	PTO Drive Gear Location	Ration of PTO Drv Gear Spd to Eng Spd	No. of Teeth	Pitch	Helix Angle	Max. Output Torque
MBP 6P	Left	(Dr 1)	10.9	36.9	5.2	13.1	7.7	2.5°	3.9	3rd Gear Trans. Countershaft	20/38 = .526	28	3.5	22° RH	180 lb-ft @ 1500 RPM
Aisin[1)]	Left	(Dr 2)	12.6	38.59	0	8	7.5	2.5	4.48	PTO Gear	1:1 with turbine	58	N/A	0°	134 lb-ft @ 1000 RPM

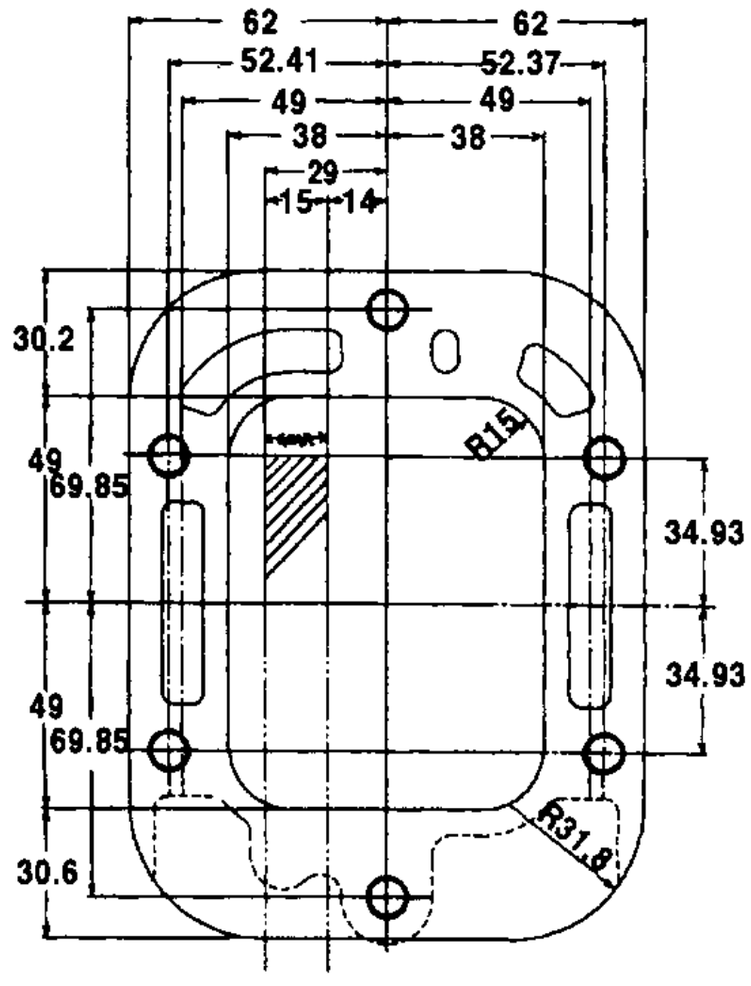
1) No PTO gear in the 150" WB models

Opening Diagram

(Dr 1) MBP 6P



(Dr 2) AISIN



BRAKE SYSTEM SCHEMATIC

Vacuum Over Hydraulic